SEQUENCE LISTING

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Moll, Thomas

<120> Antagonists IL-15

<130> 50125/101001

<140> 10/530,987
<141> 2005-04-12

<150> PCT/CH2003/00666
<151> 2003-10-13

<150> EP 02022869.8
<151> 2002-10-14

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<170> PatentIn version 3.3

<210> 1
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<212> PRT
<213> Homo sapien

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Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
20 25 30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln
35 40 45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
85 90 95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
100 105 110

Thr Ser

<210> 2
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<213> Homo sapien

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Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
        35                  40                  45

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
    50                  55                  60

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
65                  70                  75                  80

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
                85                  90                  95

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
            100                 105                 110

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
        115                 120                 125

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
    130                 135                 140

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
145                 150                 155                 160

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
                165                 170                 175

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
            180                 185                 190
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Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
195 200 205

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
210 215 220

Leu Ser Leu Ser Pro Gly Lys
225 230

<210> 3
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<213> Mus musculus

<400> 3

Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys Cys Pro Ala
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Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro Pro Lys Ile
20 25 30

Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr Cys Val Val
35 40 45

Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser Trp Phe Val
50 55 60

Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His Arg Glu Asp
65 70 75 80

Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile Gln His Gln
85 90 95

Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn Asn Lys Asp
100 105 110

Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys Gly Ser Val
115 120 125

Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu Glu Met Thr
130 135 140

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Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr Asp Phe Met Pro Glu
145                 150                 155                 160

Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly Lys Thr Glu Leu Asn Tyr
                165                 170                 175

Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Met Tyr
            180                 185                 190

Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg Asn Ser Tyr
        195                 200                 205

Ser Cys Ser Val Val His Glu Gly Leu His Asn His His Thr Thr Lys
    210                 215                 220

Ser Phe Ser Arg Thr Pro Gly Lys
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<210> 4
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<223> fusion protein

<400> 4

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Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
            20                  25                  30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln
        35                  40                  45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
    50                  55                  60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65                  70                  75                  80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
                85                  90                  95
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Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
            100                 105                 110

Thr Ser Asp Pro Lys Ser Ala Asp Lys Thr His Thr Cys Pro Pro Cys
        115                 120                 125

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
    130                 135                 140

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
145                 150                 155                 160

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
                165                 170                 175

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
            180                 185                 190

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
        195                 200                 205

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
    210                 215                 220

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
225                 230                 235                 240

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
                245                 250                 255

Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
            260                 265                 270

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
        275                 280                 285

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
    290                 295                 300

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
305                 310                 315                 320
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Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
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Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
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<223> fusion protein

<400> 5

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Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
            20                  25                  30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln
        35                  40                  45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
    50                  55                  60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65                  70                  75                  80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
                85                  90                  95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
            100                 105                 110

Thr Ser Asp Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys
        115                 120                 125

Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro
    130                 135                 140

Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr
145                 150                 155                 160
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Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser
                165                 170                 175

Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His
            180                 185                 190

Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile
        195                 200                 205

Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn
    210                 215                 220

Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys
225                 230                 235                 240

Gly Ser Val Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu
                245                 250                 255

Glu Met Thr Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr Asp Phe
            260                 265                 270

Met Pro Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly Lys Thr Glu
        275                 280                 285

Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr
    290                 295                 300

Phe Met Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg
305                 310                 315                 320

Asn Ser Tyr Ser Cys Ser Val Val His Glu Gly Leu His Asn His His
                325                 330                 335

Thr Thr Lys Ser Phe Ser Arg Thr Pro Gly Lys
            340                 345
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<210> 6
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<213> Homo sapien

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attgatgcta ctttatatac ggaaagtgat gttcacccca gttgcaaagt aacagcaatg 120

aagtgctttc tcttggagtt acaagttatt tcacttgagt ccggagatgc aagtattcat 180

gatacagtag aaaatctgat catcctagca aacaacagtt tgtcttctaa tgggaatgta 240

acagaatctg gatgcaaaga atgtgaggaa ctggaggaaa aaaatattaa agaatttttg 300

cagagttttg tacatattgt ccaaatgttc atcaacactt c 341

<210> 7
<211> 697
<212> DNA
<213> Homo sapien

<400> 7
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ggaccgtcag tcttcctctt ccccccaaaa cccaaggaca ccctcatgat ctcccggacc 120

cctgaggtca cgtgcgtggt ggtggacgtg agccacgaag accctgaggt caagttcaac 180

tggtacgtgg acggcgtgga ggtgcataat gccaagacaa agccgcggga ggagcagtac 240

aacagcacgt accgtgtggt cagcgtcctc accgtcctgc accaggactg gctgaatggc 300

aaggagtaca agtgcaaggt ctccaacaaa gccctcccag cccccatcga gaaaaccatc 360

tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgccccc atcccgggat 420

gagctgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac 480

atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cacgcctccc 540

gtgctggact ccgacggctc cttcttcctc tacagcaagc tcaccgtgga caagagcagg 600

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acgcagaaga gcctctccct gtctccgggt aaatgat 697

<210> 8
<211> 700
<212> DNA
<213> Mus musculus

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agccccatag tcacatgtgt ggtggtggat gtgagcgagg atgacccaga tgtccagatc 180

agctggtttg tgaacaacgt ggaagtacac acagctcaga cacaaaccca tagagaggat 240

tacaacagta ctctccgggt ggtcagtgcc ctccccatcc agcaccagga ctggatgagt 300

ggcaaggagt tcaaatgcaa ggtcaacaac aaagacctcc cagcgcccat cgagagaacc 360

atctcaaaac ccaaagggtc agtaagagct ccacaggtat atgtcttgcc tccaccagaa 420

gaagagatga ctaagaaaca ggtcactctg acctgcatgg tcacagactt catgcctgaa 480

gacatttacg tggagtggac caacaacggg aaaacagagc taaactacaa gaacactgaa 540

ccagtcctgg actctgatgg ttcttacttc atgtacagca agctgagagt ggaaaagaag 600

aactgggtgg aaagaaatag ctactcctgt tcagtggtcc acgagggtct gcacaatcac 660

cacacgacta agagcttctc ccggactccg ggtaaatgag 700

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<211> 1047
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<213> artificial sequence

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<223> DNA coding for fusion protein

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attgatgcta ctttatatac ggaaagtgat gttcacccca gttgcaaagt aacagcaatg 120

aagtgctttc tcttggagtt acaagttatt tcacttgagt ccggagatgc aagtattcat 180

gatacagtag aaaatctgat catcctagca aacaacagtt tgtcttctaa tgggaatgta 240

acagaatctg gatgcaaaga atgtgaggaa ctggaggaaa aaaatattaa agaatttttg 300

cagagttttg tacatattgt ccaaatgttc atcaacactt cggatcccaa atctgctgac 360

aaaactcaca catgcccacc gtgcccagca cctgaactcc tgggggggacc gtcagtcttc 420

ctcttccccc caaaacccaa ggacaccctc atgatctccc ggacccctga ggtcacgtgc 480

gtggtggtgg acgtgagcca cgaagaccct gaggtcaagt tcaactggta cgtggacggc 540

gtggaggtgc ataatgccaa gacaaagccg cgggaggagc agtacaacag cacgtaccgt 600

gtggtcagcg tcctcaccgt cctgcaccag gactggctga atggcaagga gtacaagtgc 660

aaggtctcca acaaagccct cccagccccc atcgagaaaa ccatctccaa agccaaaggg 720

cagccccgag aaccacaggt gtacaccctg cccccatccc gggatgagct gaccaagaac 780

caggtcagcc tgacctgcct ggtcaaaggc ttctatccca gcgacatcgc cgtggagtgg 840

gagagcaatg ggcagccgga gaacaactac aagaccacgc ctcccgtgct ggactccgac 900

ggctccttct tcctctacag caagctcacc gtggacaaga gcaggtggca gcaggggaac 960

gtcttctcat gctccgtgat gcatgaggct ctgcacaacc actacacgca gaagagcctc 1020

tccctgtctc cgggtaaatg atctaga 1047

<210> 10
<211> 1045
<212> DNA
<213> artificial sequence

<220>
<223> DNA coding for fusion protein

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attgatgcta ctttatatac ggaaagtgat gttcacccca gttgcaaagt aacagcaatg 120

aagtgctttc tcttggagtt acaagttatt tcacttgagt ccggagatgc aagtattcat 180

gatacagtag aaaatctgat catcctagca aacaacagtt tgtcttctaa tgggaatgta 240

acagaatctg gatgcaaaga atgtgaggaa ctggaggaaa aaaatattaa agaatttttg 300

cagagttttg tacatattgt ccaaatgttc atcaacactt cggatcccag agggcccaca 360

atcaagccct gtcctccatg caaatgccca gcacctaacc tcttgggtgg accatccgtc 420

ttcatcttcc ctccaaagat caaggatgta ctcatgatct ccctgagccc catagtcaca 480

tgtgtggtgg tggatgtgag cgaggatgac ccagatgtcc agatcagctg gtttgtgaac 540

aacgtggaag tacacacagc tcagacacaa acccatagag aggattacaa cagtactctc 600

cgggtggtca gtgccctccc catccagcac caggactgga tgagtggcaa ggagttcaaa 660

tgcaaggtca acaacaaaga cctcccagcg cccatcgaga gaaccatctc aaaacccaaa 720

gggtcagtaa gagctccaca ggtatatgtc ttgcctccac cagaagaaga gatgactaag 780

aaacaggtca ctctgacctg catggtcaca gacttcatgc ctgaagacat ttacgtggag 840

tggaccaaca acgggaaaac agagctaaac tacaagaaca ctgaaccagt cctggactct 900

gatggttctt acttcatgta cagcaagctg agagtggaaa agaagaactg ggtggaaaga 960

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ttctcccgga ctccgggtaa atgag 1045

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<211> 63
<212> DNA
<213> Homo sapien

<400> 11

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gac 63

<210> 12
<211> 72
<212> DNA
<213> Homo sapien

<400> 12
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tcctgcctcg ga 72

<210> 13
<211> 75
<212> DNA
<213> Homo sapien

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gcagccactc aggga 75

<210> 14
<211> 60
<212> DNA
<213> Homo sapien

<400> 14
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<210> 15
<211> 69
<212> DNA
<213> Homo sapien

<400> 15
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gggctcgct 69

<210> 16
<211> 40
<212> DNA
<213> Homo sapien

<400> 16
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<210> 17

<211> 144
<212> DNA
<213> Homo sapien

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ctaaacagtc attttctaac tgaagctggc attcatgtct tcattttggg ctgtttcagt 120

gcagggcttc ctaaaacaga agcc 144

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<211> 74
<212> DNA
<213> artificial sequence

<220>
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tccactggtg acaa 74

<210> 19
<211> 74
<212> DNA
<213> artificial sequence

<220>
<223> oligonucleotide

<400> 19
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tgtctccatg gtgg 74

<210> 20
<211> 36
<212> DNA
<213> artificial sequence

<220>
<223> oligonucleotide

<400> 20
ctgggtgaat gtaataagtg atttgaaaaa aattga 36

<210> 21
<211> 37
<212> DNA
<213> artificial sequence

<220>
<223> oligonucleotide

<400> 21
gatcttcaat ttttttcaaa tcacttatta cattcac 37

<210> 22
<211> 111
<212> DNA
<213> artificial sequence

<220>
<223> oligonucleotide

<400> 22
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tccactggtg acaactgggt gaatgtaata agtgatttga aaaaaattga a 111

<210> 23
<211> 111
<212> DNA
<213> artificial sequence

<220>
<223> oligonucleotide

<400> 23
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gaccactgaa gacccactta cattattcac taaacttttt ttaacttcta g 111

<210> 24
<211> 347
<212> PRT
<213> Homo sapien

<400> 24

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20 25 30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln
35 40 45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

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Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65                  70                  75                  80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
                85                  90                  95

Lys Glu Phe Leu Asp Ser Phe Val His Ile Val Asp Met Phe Ile Asn
            100                 105                 110

Thr Ser Asp Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys
        115                 120                 125

Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro
    130                 135                 140

Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr
145                 150                 155                 160

Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser
                165                 170                 175

Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His
            180                 185                 190

Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile
        195                 200                 205

Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn
    210                 215                 220

Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys
225                 230                 235                 240

Gly Ser Val Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu
                245                 250                 255

Glu Met Thr Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr Asp Phe
            260                 265                 270

Met Pro Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly Lys Thr Glu
        275                 280                 285
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Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr
    290                 295                 300

Phe Met Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg
305                 310                 315                 320

Asn Ser Tyr Ser Cys Ser Val Val His Glu Gly Leu His Asn His His
                325                 330                 335

Thr Thr Lys Ser Phe Ser Arg Thr Pro Gly Lys
            340                 345
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<210> 25
<211> 347
<212> PRT
<213> artificial sequence

<220>
<223> mutated Fc

<400> 25

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            20                  25                  30

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln
        35                  40                  45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
    50                  55                  60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65                  70                  75                  80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
                85                  90                  95

Lys Glu Phe Leu Asp Ser Phe Val His Ile Val Gln Met Phe Ile Asn
            100                 105                 110

Thr Ser Asp Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys
        115                 120                 125
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Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro
    130                 135                 140

Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr
145                 150                 155                 160

Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser
                165                 170                 175

Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His
            180                 185                 190

Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile
        195                 200                 205

Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn
    210                 215                 220

Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys
225                 230                 235                 240

Gly Ser Val Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu
                245                 250                 255

Glu Met Thr Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr Asp Phe
            260                 265                 270

Met Pro Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly Lys Thr Glu
        275                 280                 285

Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr
    290                 295                 300

Phe Met Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg
305                 310                 315                 320

Asn Ser Tyr Ser Cys Ser Val Val His Glu Gly Leu His Asn His His
                325                 330                 335

Thr Thr Lys Ser Phe Ser Arg Thr Pro Gly Lys
            340                 345
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<210> 26
<211> 1108
<212> DNA
<213> Homo sapien

<400> 26
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catattgatg ctactttata tacggaaagt gatgttcacc ccagttgcaa agtaacagca 180

atgaagtgct ttctcttgga gttacaagtt atttcacttg agtccggaga tgcaagtatt 240

catgatacag tagaaaatct gatcatccta gcaaacaaca gtttgtcttc taatgggaat 300

gtaacagaat ctggatgcaa agaatgtgag gaactggagg aaaaaaatat taaagaattt 360

ttggacagtt ttgtacatat tgtcgacatg ttcatcaaca cttcggatcc cagagggccc 420

acaatcaagc cctgtcctcc atgcaaatgc ccagcaccta acctcttggg tggaccatcc 480

gtcttcatct tccctccaaa gatcaaggat gtactcatga tctccctgag ccccatagtc 540

acatgtgtgg tggtggatgt gagcgaggat gacccagatg tccagatcag ctggtttgtg 600

aacaacgtgg aagtacacac agctcagaca caaacccata gagaggatta caacagtact 660

ctccgggtgg tcagtgccct ccccatccag caccaggact ggatgagtgg caaggagttc 720

aaatgcaagg tcaacaacaa agacctccca gcgcccatcg agagaaccat ctcaaaaccc 780

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<212> DNA
<213> artificial sequence

<220>
<223> nucleic acid for mutated Fc

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<220>
<223> Primer

<400> 28
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<220>
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<400> 29

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<220>
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<400> 30
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